

## **ABSTRACT OF THE DISCLOSURE**

Systems and methods are disclosed measuring the turn-on and turn-off times of an optoelectronic transceiver's transmitter circuitry. The method includes generating a two bit sequences from separate bit sequence generators using the same controlling pattern. The first bit sequence is transmitted through an optoelectronic device and compared with corresponding bit groups in the second bit sequence. The optoelectronic device is disabled and a count of compared bit groups is kept until the comparison indicates that the optoelectronic device is completely off. Using the count and one or more of the bit groups, a turn-off time is calculated. Alternatively, the method is used to calculate a turn-on time. The optoelectronic device is enabled and a count is kept from the time the device is enabled to when the comparison of the corresponding bit groups indicates that the optoelectronic device is completely on.

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